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Lecture at UM explores solar energy possibilities

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LECTURE AT UM EXPLORES SOLAR ENERGY POSSIBILITIES

MISSOULA—

Harry Gray, one of the top chemists in the nation, will give The University of Montana's fall 2007 Juday Lecture, "Powering the Planet with Solar Energy," on Monday, Oct. 15.

The presentation will take place at 7:30 p.m. in North Underground Lecture Hall.

Gray is a leader in the study of the role of metals in biology. He is founding director and Arnold O. Beckman Professor of Chemistry at the Beckman Institute of the California Institute of Technology.

He also will present a technical lecture, "The Currents of Life: Electron Flow through Proteins," from 11 a.m. to noon Tuesday, Oct. 16, in Urey Lecture Hall.

Both events are free and open to the public.

Gray is a member of the National Academy of Sciences and has published more than 700 research papers and 17 books, many of which are valued classroom texts.

Among his many prestigious awards are the National Medal of Science, presented by President Ronald Reagan; the Priestley Medal, which is the highest honor conferred by the American Chemical Society; the Pauling Medal; the Harvey Prize; and the Benjamin Franklin Medal in Chemistry.

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He began work in inorganic chemistry at Northwestern University, where he earned a doctoral degree in 1960. He spent a year as a postdoctoral fellow at the University of Copenhagen and then joined the chemistry faculty at Columbia University, where his main interests centered on the electronic structures and reactions of metal compounds.

After moving to Caltech in 1966, he and co-workers investigated the solar photochemistry of metal compounds, including ones that mimic parts of the process of photosynthesis.

Their work provided validation of fundamental theories of electron flow, showing that electrons can hop across long distances in proteins much like in electrical wires. Recently, they have used this molecular wire concept to probe enzymes and proteins involved in detoxification of harmful substances.

Their research also has had important implications for diseases such as Lou Gehrig's, Mad Cow and Alzheimer's.

Gray's presentation is supported by the Richard E. Juday Endowment to UM's chemistry department.

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